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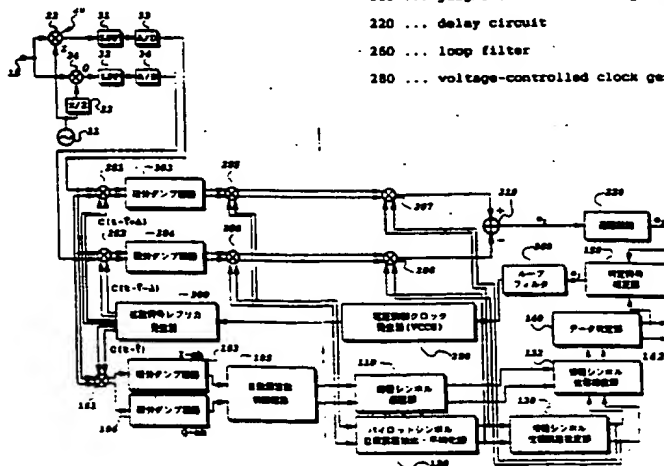
**(54) Title: DEVICE AND METHOD FOR COHERENT-TRACKING OF CDMA RECEIVER****(54) 発明の名称 CDMA受信機のコヒーレントトラッキング装置および方法**

103, 104, 203, 204 ... Integrating and dumping circuit  
 105 ... automatic frequency controlling circuit  
 300 ... spreading code replica generator

110 ... information symbol delaying section  
 120 ... pilot symbol phase error extracting/averaging section  
 130 ... information symbol phase error estimating section  
 132 ... information symbol phase compensating section  
 140 ... data identifying section  
 150 ... judgment code correcting section  
 220 ... delay circuit  
 250 ... loop filter  
 280 ... voltage-controlled clock generator (VCCG)

**(57) Abstract**

A coherent-tracking device of a CDMA receiver, which performs coherent tracking with high accuracy and with low noise. The tracking device is provided with a demodulation coherent detector which performs coherent detection by multiplying a received spread-spectrum signal by a demodulated spreading code replica whose phase is synchronized with the received spreading code contained in the received spread-spectrum signal, an absolute synchronous detector which performs absolute synchronous detection of the coherent signal (compressed-back signals) from the demodulation coherent detector and demodulates information data, a tracking coherent detector which performs coherent detection by multiplying the received spread-spectrum signal by a pair of tracking spread-spectrum code replicas having phases shifted from the phase of the demodulated spreading code replica by  $\pm 1/2$ -chip period, a judgement code correcting circuit which reversely modulates the output difference (phase error signal) of the tracking coherent detector with the output of the absolute synchronous detector to remove the information data modulated components contained in the error signal, and a spreading code replica generator which generates a demodulated spreading code replica and a tracking spreading code replica while controlling the phase by using the error signal outputted from the correcting circuit.



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